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## CHAPTER 12

### **All Arts Constantly Aspire to the Condition of Musicology: Victorian Musicology as Interdiscipline**

Bennett Zon

#### **Introduction**

Although not a Victorian term the word ‘interdiscipline’ has existed since 1930, when it was used in the eighteenth annual report of the Social Science Research Council: ‘Concern with “co-operative research” or “inter-discipline problems” should not be allowed to hamper the first-rate mind, alert to the possibilities inherent in whatever problem enlists its energies.’<sup>1</sup> Subsequent usage continues to reflect this definition, not least in periodical titles ranging across an array of topics.<sup>2</sup> This chapter traces the idea of an interdiscipline to Walter Pater’s famous adage ‘All art constantly aspires to the condition of music’<sup>3</sup> and it uses Pater’s idea to identify the origin of Victorian musicology not as a discipline, but as an interdiscipline. Pater, like many Victorian musicologists, makes his claim by using two interrelated, interdisciplinary concepts: ekphrasis and *anderstreben*. Broadly speaking, ekphrasis is a method of writing designed to embody literally the essential characteristics of another art; *anderstreben* explains how the arts seek one another as they progress towards perfection. Pater uses ekphrasis to describe a painting representing a concert, and in doing so reveals how literature seeks to embody painting in the same way painting seeks to embody music. According to the rules of *anderstreben* all art aspires to the condition of music because music is the only art that successfully collapses matter and form. In the construction of their interdiscipline Victorian musicologists, like Pater, would adopt ekphrasis as a methodological practice and *anderstreben* as a theoretical belief. Pater’s structural preoccupation with matter and form provides a strong organizational framework for interrogating key issues underpinning the interdiscipline of Victorian musicology. An introduction explores the

meaning of ‘interdiscipline’ today, followed by two main sections: under the section titled ‘Matter’ are two subsections on practice investigating the close symbiotic relationship between the Victorian musical object and the Victorian musicological subject; under ‘Form’ two subsections on theory illustrate how Pater’s seemingly oppositional methodologies of ekphrasis and *anderstreben* combine to create the dynamic interdiscipline of Victorian musicology. A conclusion reiterates my thesis, summarizes main points and overarching principles, discusses limitations and offers a projection towards further areas of research.

### **Interdisciplin(arity)**

Good definitions of ‘interdiscipline’ are elusive. Wikipedia and the *OED* give the impression that they stem largely from interrelated sciences like biosemantics, forensic kinesiology, genetic toxicology, humor and translation, information science, public health, social science in agriculture and sociolinguistics. According to J. Stykos demography, for example, is ‘clearly a discipline’ because as a field it contains ‘its own body of interrelated concepts, techniques, journals, and professional associations . . . But by the nature of its subject matter and methods demography is just as clearly an ‘interdiscipline’, drawing heavily on biology and sociology for the study of fertility; on economics and geography for studies of migration; and on the health sciences for the study of mortality.’<sup>4</sup> Historically, definitions have tended to reflect a hard scientific or social scientific origin, even if they are widely applicable across the arts as well. Human communications theorist S. W. Littlejohn defines an *interdiscipline* as ‘a field of scholars who identify with various disciplines but share a common interest in a theme that crosses traditional boundaries.’<sup>5</sup> Echoing Littlejohn humanities computing expert Willard McCarty claims that ‘A true *interdiscipline* is, however, not easily understood, funded or managed in a world already divided along disciplinary lines, despite the standard pieties. Properly so called an interdiscipline is not just another administrative entity with its

budget, chair and department members – difficult as this is to carve these days out of existing turf; it isn't an institutionally sanctioned (sic) kind of poaching. Rather it is an entity that exists in the interstices of the existing fields, dealing with some, many or all of them.'<sup>6</sup> An interdiscipline is 'constituted precisely by that unifying perspective on what happens at the intersection of two or more fields. This perspective gives the interdiscipline integrity and basis for its own research agenda, curriculum and publications. Nevertheless, as long as it remains an interdiscipline it depends on continuous activity in the intersecting fields. Preoccupation with what they share puts it in position to foster cross-fertilising exchange among them, as a merchant trader among mutually incomprehending cultures. Thus it serves them, not as a servant his master but collegially – which has radical implications for its institutionalisation.'<sup>7</sup>

More recent theorists struggle to develop these definitions, emphasizing the fundamentally binaristic nature of disciplinary and interdisciplinary projects rather than the collective unity of an interdiscipline. Theorists today tend to focus on the constantly changing dynamics of disciplinary configuration, admitting that they produce inevitably 'fuzzy' interdisciplinary boundaries.<sup>8</sup> For them the very production of new research militates against disciplinary stability because disciplines are congenitally driven to change themselves from within. The notion that disciplines are inherently fluid is confirmed and explored in this volume in the fields of science (chapter 1), mathematics (chapter 10), and history (chapter 5). Jerry Jacobs recognizes this condition as 'a form of social organization that generates new ideas and research findings, certifies this knowledge, and in turn teaches this subject matter to interested students.'<sup>9</sup> Predictably, the self-negating or self-fulfilling cycle of disciplinary configuration produces taxonomic implications. Julie Klein identifies a host of socio-institutional forces pressurizing disciplinary stability, including multidisciplinary, interdisciplinarity and transdisciplinarity. These range across a spectrum of methodologies

from disciplinarity to interdisciplinarity; complementarity to hybridization; partial to full integrationism;<sup>10</sup> and even something as potentially extreme and intractable as ‘deviant interdisciplinarity’<sup>11</sup> – an interdiscipline yearning for lost disciplinary unity. It must have been these same forces which pressured editors of the tantalizingly (yet in reality only modestly) subversive *In(ter)discipline: New Languages for Criticism* (2007) to bracket interdiscipline into indiscipline in the title of their otherwise profoundly interdisciplinary proceedings.<sup>12</sup> For Peter Szendy an interdiscipline ‘has the disadvantage of presupposing the boundaries of the very disciplines it seeks to question.’<sup>13</sup> For today’s ethnomusicologists, for example – long used to working across musicology and anthropology – an interdiscipline is porous; it is ‘a discipline itself that has its roots in two older disciplines . . . rather than an interdisciplinary field.’<sup>14</sup> Wolfgang Krohn makes a not dissimilar point when he refers to interdisciplines as ‘disciplines with interdisciplinary features.’<sup>15</sup> Like Joe Moran – who as it so happens omits ‘interdiscipline’ from *Interdisciplinarity* (2010) – Krohn encapsulates the fuzziness and conceptual recalcitrance of the term. As William McCarty says, not only does an interdiscipline defy definition but in the way it behaves interdisciplines are almost indistinguishable from disciplines themselves: ‘an interdiscipline manoeuvres for power in the same way as a discipline. But rather than as a discipline, which seems to delimit and maintain its conceptual boundaries, an interdiscipline embraces other areas of thought. A discipline defends – an interdiscipline bridges.’<sup>16</sup>

## **Matter**

### *The musical object*

We tend to think of the Victorians as great bridge-builders, architecturally and conceptually, but the origin of disciplines tells another story. Far from building bridges, many disciplines appear to burn their bridges in the unrelenting quest for specialization. Not the interdiscipline

of musicology. Musicology built bridges spanning every conceivable discipline, including a wide array of increasingly professionalized disciplines in the arts and sciences such as zoology, anthropology, ethnology, pedagogy, biography, history, philosophy and theology, to name but a few. Victorian musicology owes its interdisciplinarity partly to the fact that no single discipline can speak definitively about an object; equally, Victorian musicology found its object particularly troublesome. For one thing Victorian musicologists struggled to understand and explain music's purpose without reference to other disciplines, and in some instances disciplines like anthropology and theology seemed to hold mutually contradictory opinions, even if voiced through the same musicologist.

Modern ethnomusicologist Chris Small famously contends that music's purpose is entirely social: 'There is no such thing as music. Music is not a thing at all, but an activity, something that people do. The apparent thing "music" is a figment, an abstraction of the action, whose reality vanishes as soon as we examine it at all closely.'<sup>17</sup> Small's contemporary Richard Blacking utilizes a similar anthropological approach: music, he claims, is 'humanly organized sound.'<sup>18</sup> In fact, Small and Blacking update a common Victorian trope first voiced by public intellectual, Victorian polemicist and musical theorist Herbert Spencer in 1857. Influenced by comprehensive reading across disciplines in the sciences and social sciences Spencer considered music to be intrinsically social because it arose from language as 'impassioned speech': 'The distinctive traits of song', he claims, 'are simply the traits of emotional speech intensified and systematized . . . all music, is an idealization of the natural language of passion.'<sup>19</sup> Spencer also believed that the emotional experience which prompts music into being also prompts an altruistic socio-evolutionary characteristic: sympathy. For Spencer musical feelings are 'the chief media of sympathy': 'In its bearings upon human happiness, this emotional language which musical culture develops and refines is only second in importance to the language of the intellect; perhaps not even second to it.

For these modifications of voice produced by feelings are the means of exciting like feelings in others. Joined with gestures and expressions of face, they give life to the otherwise dead words in which the intellect utters its ideas, and so enable the hearer not only to *understand* the state of mind they accompany, but to *partake* of that state. In short they are the chief media of sympathy.<sup>20</sup> Described by George S. Carr as ‘the very apostle of Altruism’<sup>21</sup> Spencer reflects an increasingly long line of liberal social thinkers when he equates the musical object with musical emotion, musical emotion with sympathy, and sympathy with social progress. According to nineteenth-century philosopher and religious thinker John Fiske social progress ‘is *the continuous weakening of selfishness and the continuous strengthening of sympathy*. Or—to use a more convenient and somewhat more accurate expression suggested by Comte—it is a gradual supplanting of egoism by altruism.’<sup>22</sup> For Spencer all altruistic feelings may be a mixture of enlightened self-interest and social sympathy<sup>23</sup> – ‘sympathetic excitements of egoistic feelings’,<sup>24</sup> he calls them – but music is chief amongst them because the musical object is intrinsically connected to the musical subject in the mutually contingent relationship of ‘musicking’. In other words, music is only music because it is felt; it is only felt if it is musicked (to use Small’s term); and it only musicked because it embodies favourable socio-evolutionary characteristics (sympathy and altruism). Even sympathy and altruism are selfish memes,<sup>25</sup> however, and according to Spencer music is chief amongst them; at least this is what many scientifically-minded Victorians seemed to believe about the purpose of music.<sup>26</sup>

Yet Spencer’s evolutionary anthropology is not entirely consistent from a purely disciplinary standpoint. Obsessed with the relation of unity and diversity from the 1860s Spencer embarked upon an embarrassingly retrograde transcendental odyssey eventually reprised in ‘Religion: A Retrospect and Prospect’ (1884) which would describe the ‘an Infinite and Eternal Energy, from which all things proceed’.<sup>27</sup> Spencer attracted huge critical

opprobrium when he dallied (unsuccessfully) with the idea of a transcendental Absolute – what he described as the Unknown Reality – because for some it compromised the integrity of his unremittingly materialistic philosophical project: ‘Though Spirit and Matter [are antithetical conceptions] . . . the one is no less than the other to be regarded as but a sign of the Unknown Reality which underlies both.’<sup>28</sup> The Rev George Ladd tried to help but probably made matters worse by suggesting the Unknowable was effectively God in everything but name: ‘the Unknowable is known to be a Power; and it must be a great Power, for the *Universe* – that is, all manifestations of power – is manifest to us. But power, inconceivably great – enough to accomplish all things done and even more – has been by Theists from time immemorial held to be an attribute of God. But Mr Spencer speaks of *the* Power; and as he nowhere uses the plural and doubtless holds to the unity of the Universe, having himself made an attempt to represent in philosophy this unity of the universe, he must believe in the unity also of the Power which the one universe manifests.’<sup>29</sup> Spencer believed in the relativity all things – music included. Everything is interconnected by the unifying force of evolution, even thought itself: ‘every thought expresses a relation – since thinking is relational’; ‘every thought involves a whole system of thoughts and ceases to exist if severed from its various correlatives.’<sup>30</sup> With the admission of an Absolute Unknowable the idea that music was the idealized language of the emotions took on an undeniably transcendental hue. Suddenly musical sympathy began to look more and more theological and less and less anthropological. Even arch-agnostic Darwin failed to help. Writing about music’s function as part of the rituals of sexual selection amongst birds Darwin claims that music conjures up a range of emotions of a long past age, the most importance of which is the most spiritually essentialized – love: ‘Love’, Darwin claims, ‘is still the commonest themes of our own songs.’<sup>31</sup>



Spencer's disciplinary confusion over music's purpose mirrors contemporary philosophical confusion over the meaning of form and content in music. Is music 'absolute' and transcendental; or is it 'programmatic' and culturally contingent? Should content map onto pre-determined form like sonata or rondo; or should form structurally mirror the literary narrative (the programme) its content seeks to represent? Not unconnectedly, does the use of words diminish or increase the purity of compositional meaning? Yet again the musical object was a site of intense disciplinary contingency. If neither anthropology nor theology could explain its purpose maybe philosophy could, at the very least, explain its meaning. Easier said than done, as philosopher Roger Scruton proves: music, he avers, 'does not merely echo or imitate things which have an independent reality; the development of programme music is determined by the development of its theme. The music moves in time according to the logic of its subject and not [like absolute music] according to autonomous principles of its own.'<sup>32</sup> The fierceness of debate is captured in the diametrically opposing disciplinary perspectives of absolutist Eduard Hanslick and programmaticist Franz Liszt. Drawing upon metaphysical philosophies of German Idealism Hanslick considered the term music to exclude not only compositions with words, but even instrumental compositions with programmatic inscriptions: music's 'union with poetry,' he opines, 'though enhancing the power of music, does not widen its limits.'<sup>33</sup> For Liszt, however, the most meaningful music is theological, and the most theological music is programmatic because art, like music, should reflect life in the way life reflects its divine Creator, even music which includes no literary programme at all:<sup>34</sup> 'In program music,' he advises, 'the recurrence, variation, alteration, and modulation of motifs are determined by their relationship to a poetic idea. Here one theme no longer begets another . . . Though not ignored, all exclusively musical considerations are subordinated to the treatment of the subject at hand. Accordingly, the treatment and subject of this symphonic genre demand an engagement that goes beyond the technical treatment of

the musical material. The vague impressions of the soul are elevated to definite impressions through an articulated plan, which is taken in by the ear in much the same manner in which a cycle of paintings is taken in by the eye. The artist who favors this kind of artwork enjoys the advantage of being able to connect with a poetic process all those affects which an orchestra can express with such great power.’<sup>35</sup>

### *The musicological subject*

Whether absolutist or programmaticist, Victorian musicologists made theology, anthropology, philosophy and many other disciplines unwitting partners in the construction of their interdiscipline. They did that by defining *themselves* as much as they defined the musical object they studied. The Victorian musicological subject (the musicologist) defined himself or herself within a matrix of three intersecting areas of socio-cultural development: professionalization, education and popularization. If the founding of a professional organization signals the origin of a discipline, then Victorian musicology began in 1874 with the founding of the Musical (later Royal) Association. Unsurprisingly perhaps the Musical Association’s manifesto is consummately interdisciplinary; according to one of its first Vice Presidents William Spottiswoode ‘It has been suggested by several leading persons interested both in the theory and practice of Music, that the formation of a Society, similar in the main features of its organisation to existing Learned Societies, would be a great public benefit. Such a Musical Society might comprise among its members the foremost Musicians, theoretical as well as practical, of the day; the principal Patrons of Art; and also those Scientific men whose researches have been directed to the science of Acoustics, and to kindred inquiries. Its periodical meetings might be devoted partly to the reading of Papers upon the history, the principles, and the criticism of Music; partly to the illustration of such Papers by actual performance; and partly to the exhibition and discussion of experiments

relating to the theory and construction of musical instruments, or to the principles and combination of musical sounds.’<sup>36</sup> Spottiswoode expresses a categorical interdisciplinary criterion when he emphasizes the need for parity between theory and practice, and models the association and its patronage upon similar professional societies. He also embraces experimental science (especially acoustics) at the same time as developing *intradisciplinary* methodologies in music history, criticism, analysis and technology (organology). If an interdiscipline ‘exists in the interstices of the existing fields’<sup>37</sup> and is a ‘field of scholars who identify with various disciplines but share a common interest in a theme that crosses traditional boundaries’<sup>38</sup> – if ‘a discipline defends and an interdiscipline bridges’<sup>39</sup> – Spottiswoode’s interdisciplinary Victorian musicologist would be a wholehearted advocate. Indeed, Spottiswoode came with excellent interdisciplinary credentials. Amongst them he was a fellow of the Society of Antiquaries; treasurer of the British Association for the Advancement of Science (1861-74); president of the Ethnological Society of London from 1864; treasurer of the Royal Institution (1865-73); in 1865 president of the mathematical section, and in 1878 president of the British Association; president of the London Mathematical Society (1870-72); and from 1853 fellow, from 1871 to 1878 treasurer, and in 1878 president of the [Royal Society](#). In addition, he was a fully paid up member and later president in 1878 of the influential dining club for scientific naturalists the X-Club.<sup>40</sup>

In referring to the association’s educational remit Spottiswoode also highlights the epistemic tension between discipline and interdiscipline by creating ‘a form of social organization that generates new ideas and research findings, certifies this knowledge, and in turn teaches this subject matter to interested students.’<sup>41</sup> In fact the Musical Association effectively joined an educational programme already underway in universities like Edinburgh, Cambridge, Oxford, and London. Here, as in the cases of dance (chapter 2), art history (chapter 3), history (chapter 4), theology (chapter 9), and classics (chapter 9), the role

of the university could be crucial. Edinburgh created an undergraduate music curriculum in 1838. Cambridge taught acoustics from the 1830s and had developed a music curriculum by the 1870s. Oxford was slower off the mark in teaching acoustics, but along with Trinity College of Music (University of London) had caught up with Cambridge by the time they inaugurated their own curriculum in the 1870s. The Rev. Peter Maurice, Chaplain to New and All Souls colleges in Oxford, discussed the role disciplines played in this transitional process. In an incendiary letter to Earl Derby, then Chancellor of the university, Maurice complains vociferously about music's inferior status within the university; a lack of cohesion between music students and graduates to their colleges and institution; disadvantageous distinctions between doctors of music and other disciplines; and the denial of honours allowing them the privilege of voting in university elections and sitting in Convocation.<sup>42</sup>

The topic of Oxford's historical DMus (Doctor of Music, always in Composition) degree says it all: A Doctor (or Inceptor) in Music must have studied and practices his art for a long time of years, though Oxford contributes not a mite towards his qualification, but exacts, without taking any steps to ensure the decent performance of those elaborate and finished compositions which a Doctor in Music must compose . . . The musical degrees, as far as Oxford is concerned, are an empty name, with no privilege whatever attached to them within its walls; even a seat among its Doctors in the House of Assembly is denied to the entire faculty. And, if this is the treatment which the representatives of the most liberal of all the Arts and Sciences meets with, in the most famous of all the Universities in the world, who can feel astonishment at the little respect paid to the faculty elsewhere!<sup>43</sup> Two of Maurice's imperatives signal the origin of a Victorian musicological interdiscipline. Firstly it is absolutely imperative that the university's self-perpetuating prejudice against music is abolished, for only then can we prevent 'those very talents which nature may have lavished upon us' from being 'buried, or perhaps rusted away';<sup>44</sup> and secondly, and contingent upon

succeeding in abolishing prejudice, is the need to reformulate the university's understanding of music's historical position amongst the Arts and Sciences. This is more than a plea to reassert music's place within the medieval quadrivium but an interdisciplinary imperative to reinvigorate lost, lapsed relationships with Classics and Theology in particular: 'All classical literature,' he opines, 'from its earliest era, has been invariably identified with Music'; 'What', moreover, 'has been done for Music ever since its divorcement from Theology?'<sup>45</sup>

Maurice's musicologist may be uncompromising in the interdisciplinary educational demands he places upon an unresponsive university – to rise to the highest class Music, he claims, must pay 'diligent and painful attention to all the disciplines of the Art and Science'<sup>46</sup> – but he is equally demanding upon the development of culture more popularly.

Popularization puts interdisciplinary musicological theory into cultural practice by triangulating professionalization and education, and it does so through an array of disciplines distributed across the arts and sciences. Bernard Lightman offers an assessment of scientific popularization; for him science 'became fashionable and respectable within a broader spectrum of the populace, not just within the circles of the well to do . . . Scientific knowledge seemed to offer the magical password – the "open sesame" – that unlocked the doors to exhilarating new works in the second half of the century.'<sup>47</sup> But as Lightman and I have aimed to prove science is nothing without the Arts;<sup>48</sup> indeed, by focusing on the interdisciplinary 'threshold' between the sciences and the arts (particularly as expressed by female popularizers), Lightman highlights the importance their cross-fertilization contributes to the creation of knowledgeable Victorian generalists.<sup>49</sup> Scientific popularizer Annie Carey may as well be speaking for musicology when she claims that 'Elementary knowledge – meaning by that phrase a knowledge of the facts that stand on the threshold of every department of Science and Art – needs most especially to be accurately presented and carefully instilled in early life.'<sup>50</sup> The same interdisciplinary concept of 'threshold' appears

in Victorian musicology, culminating in the popularizing book *The Threshold of Music: An Inquiry Into the Development of the Musical Sense* (1908) by late Victorian music psychologist William Wallace. In his lugubriousness Wallace reads much like Maurice did some sixty years earlier despite all the advances in music over the years, but while Maurice represents the origin of an interdisciplinary initiative Wallace is already operating within an established – if slowly developing – interdisciplinary threshold: ‘The scientific man is somewhat complacent’, he maintains: ‘All scientific men are not musicians, nor are many musicians versed in science.’<sup>51</sup>

## Form

### *Ekphrasis and the interdisciplinary musical object*

If tested, the same could perhaps be said of literary figures – with one major exception: Walter Pater. Critic and philosopher Walter Pater is not generally interpreted in interdisciplinary contexts to my knowledge (he does not appear in *The Oxford Handbook of Interdisciplinarity*, for example) but his work provides a rare opportunity to theorize musicological interdisciplinarity from a contemporary Victorian standpoint. Pater’s reference to music is famous as much for its clarity as its opaqueness: ‘*All art constantly aspires towards the condition of music*. For while in all other kinds of art it is possible to distinguish the matter from the form, and the understanding can always make this distinction, yet it is the constant effort of art to obliterate it. That the mere matter of a poem, for instance, its subject, namely, its given incidents or situation – that the mere matter of a picture, the actual circumstances of an event, the actual topography of a landscape – should be nothing without the form, the spirit, of the handling, that this form, this mode of handling, should become an end in itself, should penetrate every part of the matter: this is what all art constantly strives after, and achieves in different degrees.’<sup>52</sup>

The enigmatic meaning behind Pater's assertion has eluded scholars for years. More recently, and not unlike many literary historians, musicologist Mark Evan Bonds has tried explaining it as an extension of Hanslick's concept of absolute music. Having presumably read Hanslick's treatise, Pater, according to Bonds, hoped to apply to art the same kind of inseparability of form and content possible only in music:<sup>53</sup> 'It is the art of music', Pater avers, 'which most completely realizes this artistic ideal, this perfect identification of matter and form. In its consummate moments, the end is not distinct from the means, the subject from the expression; they inhere in and completely saturate each other; and to it, therefore, to the condition of its perfect moments, all the arts may be supposed constantly to aspire.'<sup>54</sup> Two interrelated concepts emerge from Pater's dalliance with music: ekphrasis and *anderstreben*. Music philosopher Lydia Goehr defines ekphrasis as producing 'images for the mind's eye by means of words.'<sup>55</sup> Pater comes in a long line of ekphrastic communicators, and uses the technique to describe Titian's *Concert* (1510–12), praising 'the skill with which he caught the waves of wandering sound, and fixed them forever on the lips and hands' of the performers.'<sup>56</sup> But as Goehr claims, Victorian and ancient ekphrasis differ: Victorian ekphrasis focused on the comparison of aesthetic objects like music, art and poetry; ancient ekphrasis, on the act of conjuring up an image through spoken or written words.<sup>57</sup> Goehr distinguishes these by referring to '*aesthetic presence* when ekphrasis remains within the domain of the arts, and to *imaginative presence* when it extends beyond this domain.'<sup>58</sup> Aesthetic (modern) and imaginative (ancient) presence are not unlike the disciplines they draw upon to conjure up an image; all aesthetic presences aspire to condition of imaginative presence.

Ekphrasis plays an important role in the way the musical object is imagined and constructed by the Victorian interdisciplinary musicological subject. For Pater although as an aesthetic presence the musical object represents the perfect conflation of matter and form

(presumably whether absolute or programme) it is paradoxically only through the imaginative presence that its properties come to life. This is roundly proved by Victorian musicology, which invests the musical object with inherent social properties, like Spencerian sympathy or Darwinian love, while through literary prose communicating those characteristics in ways which seek to mirror the very object they wish to study. Spencer is not renowned for the elegance of his prose, but when it comes to music he is unusually ekphrastic. In addition to describing non-vocal expression Spencer peppers 'The Origin and Function of Music' with short ekphrastic illuminations of spoken text. The 'Oh' of astonishment or delight exemplifies the middle voice; 'Beware!', the lower voice; 'Hallo! How came you here?', contrasting registers; calling for the maid 'Mary', an ascending interval of a third – the list is extensive. Fuller sentences extend this ekphrastic approach, and replicate the emotional tempo: 'The slowest movements, *largo* and *adagio*, are used where such depressing emotions as grief, or such unexciting emotions as reverence, are to be portrayed; while the more rapid movements, *andante*, *allegro*, *presto*, represent successively increasing degrees of mental vivacity.'<sup>59</sup> Darwin is noticeably similar, if more elegantly poetic, when writing about musical origins, as he conjures up the intangible sensations of musical experience in the words he uses to describe them: 'The sensations and ideas excited in us by music, or by the cadences of impassioned oratory, appear from their vagueness, yet depth, like mental reversions to the emotions and thoughts of a long-past age.'<sup>60</sup>

While Darwin's ekphrastic imagination is well known,<sup>61</sup> and Spencer's has probably never attracted attention, the influence of an ekphrastic imagination has never been placed in Victorian musicological contexts, even though examples of it are ubiquitous. It was 1896 before Victorian ornithological field books, for example, included illustrations of birdsong transcribed into musical notation<sup>62</sup> – before then field guides used mnemonics in lieu. But mnemonic books like *A Dictionary of Bird Notes* (1889) take ekphrastic techniques to an



altogether higher zoomusicological level, producing a veritable Note-Bird/Bird-Note dictionary crammed not simply with mnemonics but ekphrastic glosses on onomatopoeic syllables. Thus, the Great Black-backed Gull produces a ‘croak (harsh)’; the Ring Dove, ‘coo-coo-co-co-coo (soft)’<sup>63</sup> in a way which aspires to the conflation of form and content heralded by Pater and Hanslick as absolute music. Earlier still, the same ekphrastic imagination occurs in pedagogical writing which for educational purposes tries to replicate the actual sound of musical objects, in reverse literary direction to programme music. ‘The Butterfly’ in Henry Keatley Moore’s emphatically Froebelian *Child’s Pianoforte Book* (1880?) makes this explicit: ‘Now you know how the butterfly flutters its wings as it hovers over the flowers; and how frequently it rests, with wings quite still . . . Let us try to express both the fluttering and the resting in our music.’<sup>64</sup> **FIGURE 12.1 HERE** For Keatley Moore, like all Froebelians, there is a tangible – one might say ‘programmatically’ – relationship between concepts and reality and music exemplifies that more than any other art; according to Froebel music is ‘representation through sound’, and song ‘life-giving word’.<sup>65</sup>

Keatley Moore was not alone in applying an ekphrastic imagination to an interdisciplinary musical object caught between its epistemic reality as music and its linguistic representation in words. Like Keatley Moore, co-educationist John Curwen, founder of Britain’s most popular singing method Tonic Sol-Fa, also roots his teaching in an ekphrastic language combining all the ingredients of music – amongst them rhythm, tone, melody, phrase, timbre, accent and meter: ‘Now, children, we are going to learn the art of singing in tune. What are we going to learn? First, then, you must remember that any musical sound is called a *note*. What is a musical sound called? This is a note.’ (*I hear you singing to the sound ah any note you please.*)<sup>66</sup> Heavily influenced by educationist Johann Heinrich Pestalozzi (Froebel’s teacher), Curwen like Keatley Moore triangulates visual, musical and textual ekphrasis in a kind of imagesoundtext, to expand W. J. T. Mitchell’s

concept of imagetext.<sup>67</sup> The image of the ‘The Butterfly’ (Figure 12.1), for example, not only harmonizes text and tune (Figure 12.2) by encapsulating two states of stillness and movement it also captures in perspective and position the rising opening figure of the music. The more distant fluttering butterfly is the note G, which nears as it rises up to the note D (the dominant to G’s tonic) on the third beat of the first bar where it stops briefly for honey. Whereas Keatley Moore uses ekphrasis to represent individual pieces of music, however, Curwen elevates it to a structural feature of a system in which emotions, hand signs and pitches of the scale (Figure 12.3) combine in an imagesoundtext to form the very pedagogical basis of Tonic Sol-Fa (learning to read with Do, re, mi, fah, sol, la, ti, do). Hand signs indicating pitch are allocated ‘mental effects’ (emotions) in images representing an emotional spectrum from positive to negative, happy to sad, strong to weak. In some respects Keatley Moore and Curwen seem to express what Goehr calls an *aesthetic presence*, if by aesthetic presence we concentrate on the mutual representationality of occasionally unified images, sounds and texts. But Curwen’s more structural ekphrasis is also indicative of an *imaginative presence* in which language is systemically implicated in the representational essence of an interdisciplinary musical object. For Curwen that object is centripetal, unifying, convergent. To paraphrase Solis it is an object that has its roots in at least two different objects; or McCarty, an object that exists in the interstices of existing objects.

#### *Anderstreben and the interdisciplinary musicological subject*

Curwen’s interdisciplinary musical object may be forged by an ekphrastic (*aesthetic* or *imaginative*) presence but like ‘The Butterfly’ it also represents the locus of considerable (disciplinary) movement. Whether or not as disciplines all arts aspire to the condition of musicology, the Victorian musicological subject is disciplinarily polygamous because the musical object represents an experiential fullness sentiently impossible in other disciplines.

Walter Pater explains that fact by invoking the word ‘*anderstreben*’, literally *anders-streben* – other-seeking: ‘what German critics term as *Anders-streben* – a partial alienation from its own limitations, through which the arts are able, not indeed to supply the place of each other, but reciprocally to lend each other new forces . . . Thus, again, sculpture aspires out of the hard limitation of pure form towards colour, or its equivalent; poetry also, in many ways, finding guidance from the other arts, the analogy between a Greek tragedy and a work of Greek sculpture, between a sonnet and a relief, of French poetry generally with the art of engraving, being more than mere figures of speech; and all the arts in common aspiring towards the principle of music; music being the typical, or ideally consummate art, the object of the great *Anders-streben* of all art, of all that is artistic, or partakes of artistic qualities.’<sup>68</sup>

The Victorian musicological subject effectively proved *anderstreben* through a consistently self-empowering interdisciplinarity drawn from selective extra-disciplinary methodologies. When Herbert Spencer arrived at his theory of musical origins, for example, it represented the coalescence of a synthetic philosophy later systemized to include biology, psychology, sociology and ethics, amongst other disciplines. Spencer’s synthetic philosophy revolves around principles of evolutionary thought the same way that absolute music revolves around sonata form. Content is mapped onto form. That Spencer is a methodological absolutist is apparent in his positively contrapuntal disciplinary treatment of music. Music may have originated in the ‘physiological deduction’ of impassioned speech (biology); it may be effected by ‘mental energy’ (psychology) and manifest ‘a product of civilization’ (sociology); and it may indeed be ‘the chief media of sympathy’ (ethics),<sup>69</sup> but through the ‘other-seeking’ of *anderstreben* the musicological subject produces a musical object escaping its limitations by reciprocally lending itself and other disciplines new forces. At the same time it is indisputable that Spencer’s *anderstreben*, combined with an ekphrastic predilection, partly anticipated and contributed to the creation of musicology as a Victorian interdiscipline – an

interdiscipline that ‘embraces other areas of thought’; an interdiscipline that bridges.<sup>70</sup>

Spencer claims rather emphatically that music is a product of civilization, for example, but implicitly – if the tenets of musical sympathy are to be believed – that civilization is also a product of music. The point is that Spencer’s intellectual traffic flows both ways across the disciplinary bridges.

In fact the disciplinary bridges flow in more than two ways because Victorian disciplines intersect prolifically, and especially with musicology. Partly, Victorian musicology’s ‘other-seeking’ is due to the fact that it in tandem with developments in university education (particularly in the science of acoustics) it was also informed by years of professionally regulated teaching in conservatoires. By the time the Musical Association was founded in 1874 the Royal Academy of Music was already over fifty years old. The intersection of theory and practice is obviated in Spottiswoode’s repeated proclamation of parity between theory and practice. The society should include ‘persons interested both in the theory and practice of Music . . . the foremost Musicians, theoretical as well as practical.’ The convergence of theory and practice inscribed Victorian musicology with an interdisciplinary motivation to cross-purpose the musical object methodologically as a genuine site of universal relativity. Thus, the Victorian musicological subject sought disciplinary connections with systemic, not merely aesthetic, implications for the late Victorian musical object. A good example of this is *Style in Musical Art* (1911) by C. Hubert H. Parry, composer, musicologist and ardent Spencerian. Parry cloaks the classical symphony in Spencerian evolutionary language: ‘In such slow steps of development the same law of progress is found as elsewhere; simple combinations first, and the more complex combinations as, step by step, men mastered the methods upon which they could be dealt with. Progress is always towards the more decisive differentiation, and it is surely is nowhere more conspicuously shown than in the story of orchestral music; beginning with a simple

group of a few instruments, which were but inadequately used in respect of obtaining from each their appropriate ministrations, and then proceeding by constant addition of instruments which enhanced the possibilities of expression and colour, and by finding out how to amalgamate their idiosyncrasies into a composite and convincing whole.’<sup>71</sup> Parry does more than synthesize Spencer synthesizing evolution, however; he brings scientific theory into the realm of musicological practice, and musicological practice into compositional theory. As a composer himself Parry is both theoretician and practitioner, embodying in music his evolutionary compositional theory in practice. Jeremy Dibble gives us a glimpse of the closeness of the relationship in a description of the trio movement of Parry’s Piano Quartet (1879) anticipating his later evolutionary sentiments: ‘Parry succeeds in fashioning protracted, self-developing thematic paragraphs together with a series of broad, cumulative climaxes, and these are further enhanced by the sense of continuity created by the avoidance of full closes.’<sup>72</sup>

As a musicological subject Parry’s theorist-practitioner is a common feature of an interdiscipline ‘unifying’, as McCarty suggests, ‘perspective on what happens at the intersection of two or more fields’. But musicology not only unifies disparate fields in the way *anderstreben* reciprocally lends each discipline new forces, uniquely amongst the arts it also can also lend its musical object an ekphrasis converting disciplinary thought (evolution) into musical sound (composition). Ekphrastic *anderstreben* occurs across a range of compositional types inflected by disciplinary predispositions and predilections. It may seem self-evident that as interdisciplinary musical objects Victorian hymns, for example, often embody in musical composition the very same characteristics they represent in theology. In current musicology that concept is called Music Theology, and is typified by works that interrogate and problematize their disciplinary episteme.<sup>73</sup> But the Victorians got there first. ‘Abide with me’ (text, 1847; music, 1861), for example, is veritably programmatic in the way

it portrays the transient nature of life through a series of falling and lengthening melodic motifs, but it also recapitulates dogmatic theological principles like the eternal immutability of God and the Incarnation of Jesus Christ: in hymns as in the theology they embody ‘Christ himself was synonymous with a figuration or metaphor of ‘the Church’.’<sup>74</sup> Conversely, music can inform theology – even theology reflecting scientific concepts of design: ‘The correlations of Music are so many and so perfect,’ John Harrington Edwards suggests, ‘that that of themselves they prove a Supreme creative mind.’<sup>75</sup>

Edwards not only expresses what many musicologists felt, he does it in a manner Victorians would have recognized methodologically; by using music to express theology (and theology to express science) the musical object and the musicological subject become reciprocally augmented in a way which echoes and magnifies the truth of incarnational doctrine. As this suggests, whether connecting theology, science or other disciplines to musicology the Victorian musicologist was acutely aware of the recapitulatory capability a critical hermeneutic like *anderstreben* produces for interdisciplinarity. Victorian music philosopher and evolutionary spokesperson Joseph Goddard exemplifies this awareness in *The Rise of Music* (1908) when as a scientist he claims that ‘the present work is not a history of music in the ordinary sense, but rather a tracing of the organic unfolding of the musical art. At the same time it presents a perspective of both the history and constitutions of music, in which history is seen to elucidate theory, and theory, history.’<sup>76</sup> Whether or not it is history in the ordinary sense, as *anderstreben* *The Rise of Music* typifies Victorian disciplinary reciprocity. If [music] history can elucidate theory and theory [music] history, then musicology had come of age, and by definition had become a true interdiscipline existing in the interstices of the existing field.

## Conclusion

Pater and Goddard would have probably enjoyed one another's company, so similar are their interdisciplinary approaches. Using music as a model, both aim to collapse theory and practice by breaking down the relationship of matter and form. Goddard and many other Victorian musicologists, like C. Hubert H. Parry, William Wallace and Peter Maurice; educationists like John Curwen and Henry Keatley Moore; and theorists like Herbert Spencer and Charles Darwin do this by using the same organic properties they observe in musical objects to inform their methodologies.<sup>77</sup> Pater does this by expressing *anderstreben* through the technique of ekphrasis. Using those techniques Victorian musicology became an interdiscipline by collapsing distinctions between the objects it studied (matter) and the structure it was given by subjects studying them (form). In so doing, Victorian musicology went beyond the more limited bridge-building between two disciplines illustrated by the classics and theology (chapter 9), autobiography and evolutionary psychology (chapter 8), and the novel and the sciences (chapter 11).

This is not altogether different from what disciplines do today: disciplines seek other disciplines to answer questions about themselves, and the result is an interdiscipline which bridges disciplines. But is this result an intrinsic feature of disciplinary behaviour, or is it unique to Victorian musicology? If it is unique why did Victorian musicology interdisciplinarize when all other disciplines of the time seem to begin crystallizing into the academic disciplines we recognize now? And if today modern disciplines all gravitate ineluctably towards interdisciplinarity is it not unreasonable to describe Victorian musicology as the first modern discipline? Helen Small may provide an answer to these admittedly rhetorical questions, if only partially and implicitly: not all disciplines interdisciplinarize in the same way, for the same reason or to the same extent. The humanities, she says, 'study the meaning-making practices of human culture, past and present, focusing on interpretation and critical evaluation, primarily in terms of the individual response and with an ineliminable

element of subjectivity.’<sup>78</sup> Small hits the nail on the head: subjectivity. The humanities are prey to subjectivity in a way unmatched in the sciences because every object they study – every work of art they study – is studied specifically for its individuality. There are, in other words, no repeatable ‘experiments’ in the humanities. Unless technologically replicated every object the humanities study (today or historically) is designed to produce a manifestly different object. Even if an experiment in the broadest sense the artistic object is by its nature a study in plenitude, and music, according to Pater, the most plenitudinous of all artistic objects. Does music represent an apogee as an art or discipline, therefore? Certainly Walter Pater believed it, because like so many other Victorians he believed in music’s transcendental plenitude.<sup>79</sup> An interdiscipline is not unlike plenitude, of course; whether contemporary or modern the fullest interdiscipline will presumably strive ineluctably for the greatest interdisciplinarity. Sheila Jasanoff suggests this when she defines two types of interdiscipline: a new ‘interdiscipline’ as coming into being ‘principally through exchanges amongst scholars already belonging to one or another established disciplinary community and trained in its forms or reasoning and research practices’; and an ‘*interdiscipline*’, ‘an interdependent disciplinary formation situated among other disciplines. Such a field may come into being through topical exploration and theoretical or methodological innovation as well as through exchange, coalescing into an autonomous island of knowledge-making with its own native habits of production and trading.’<sup>80</sup> Whether or not they are genuinely different is a matter of philosophical debate, but one thing is certain, both interdisciplines (interdiscipline and *interdiscipline*) receive inverted commas of subjectivity, and the inverted commas are an epistemic give-away. Like the idea of a specimen type in evolutionary thinking, the very concept of an interdiscipline is ontologically unstable, caught between theory and practice, matter and form, absolute and relative, unity and diversity, science and religion. The specimen type may be taxonomically fixed, but no natural object subject to the



laws of evolution can be said to be truly ‘fixed’ in position. Like the specimen type, an interdiscipline is a conceptual convenience for something we do not fully understand and never will, because it exceeds our imagination’s ability to grasp its plenitude. We can at least observe its manifestation and origins in Victorian musicological practice, for example, and perhaps this is where future research should concentrate its efforts – identifying where in Victorian culture we find it operating; how it functions and why it behaves the way it does. Perhaps that will help us bridge to the threshold of the present, where a true interdiscipline bridges both time and space, arts and sciences.

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<sup>1</sup> ‘Interdiscipline’, *Oxford English Dictionary*, <http://www.oed.com.ezphost.dur.ac.uk/view/Entry/243540?rskey=cqn4Se&result=1#eid12528631>, accessed 20/3/17.

<sup>2</sup> The term has certainly appeared from 1964, as *Interdiscipline*, the title of the journal of the Gandhian Institute of Studies. See also Edward Quinn, *Interdiscipline: A Reader in Psychology, Sociology, and Literature* (New York: Free Press, 1972); Yogendra Pal Singh, Udai Narain Pareek and D. R. Arora, *Diffusion of an Interdiscipline: Social Sciences in Agricultural Education* (Delhi: New Heights for Indian Society of Extension, 1974); J. Leeds Polytechnic (author), *Interdiscipline*, Leeds: The University Photography Service, [1970-9]; Mayone Stycos, *Demography as an Interdiscipline* (Brunswick PA: Transaction Publishers, 1987/1989); Mary Snell-Hornby, Franz Pöschhacker and Klaus Kaindl, eds., *Translation Studies: An Interdiscipline* (Amsterdam and Philadelphia: J. Benjamins, 1994); see also <https://en.wikipedia.org/wiki/Interdiscipline>, accessed 2/2/17.

<sup>3</sup> Walter Pater, ‘The School of Giorgione’, in *The Renaissance: Studies in Art and Poetry*, ed. Adam Phillips (Oxford and New York: Oxford University Press, 1986), 86.

<sup>4</sup> J Mayone Stycos, ed., *Demography as an Interdiscipline* (New Brunswick NJ: Transactions Publishers, 1989), vii.

<sup>5</sup> S. W. Littlejohn, ‘An Overview of Contributions to Human Communication Theory from other Disciplines’, in *Human Communication Theory: Comparative Essays*, ed. F. E. X. Dance (New York: Harper & Row, 1982), 246.

<sup>6</sup> Willard McCarty, ‘Humanities Computing as Interdiscipline’, A Seminar in the Series, “Is Humanities Computing an Academic Discipline?”, held under the auspices of the Institute for Advanced Technology in the Humanities (IATH), at the University of Virginia, Guy Fawkes Day 1999. (Ver. 13 October 1999; rev. 14 October, 15 October; 22 October 1999), <http://www.iath.virginia.edu/hcs/mccarty.html>, accessed 22/1/16.

<sup>7</sup> Willard McCarty, ‘Looking Through an Unknown, Remembered Gate: Millennial Speculations on Humanities Computing’, *Interdisciplinary Science Reviews* 26/3 (Autumn 2001), 173–82, <http://www.mccarty.org.uk/essays/McCarty,%20Through%20an%20unknown%20remembered%20gate.pdf>, accessed 22/1/16.

<sup>8</sup> Jerry A. Jacobs, *In Defence of Disciplines: Interdisciplinarity and Specialization in the Research University* (Chicago and London: University of Chicago Press, 2013), 6.

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<sup>9</sup> Jacobs, *In Defence of Disciplines*, 28.

<sup>10</sup> Julie Thompson Klein, 'A Taxonomy of Interdisciplinarity', in *The Oxford Handbook of Interdisciplinarity*, eds. Robert Frodeman, Julie Thompson Klein, and Carl Mitcham (Oxford et al: Oxford University Press, 2010), 15-30, on 16.

<sup>11</sup> Steve Fuller, 'Deviant Interdisciplinarity', *Oxford Handbook of Interdisciplinarity*, 50-64, on 50.

<sup>12</sup> See Gillian Beer, Malcolm Bowie and Beate Perrey (eds.), *In(ter)discipline: New Languages for Criticism* (London: Legenda, 2007).

<sup>13</sup> Peter Szendy, 'Echoing the 'Mortal Ear': Orfeo's Indiscipline', in *In(ter)discipline: New Languages for Criticism*, eds. Gillian Beer, Malcolm Bowie and Beate Perry (London: Legenda, 2007), 63-66, on 66.

<sup>14</sup> Gabriel Solis, 'Thoughts on an Interdiscipline: Music Theory, Analysis, and Social Theory', *Ethnomusicology* 56/3 (Fall 2012), 530-554, on 551.

<sup>15</sup> Wolfgang Krohn, 'Interdisciplinary Cases and Disciplinary Knowledge', *Oxford Handbook of Interdisciplinarity*, 31-49, on 33.

<sup>16</sup> McCarty, 'Looking Through an Unknown, Remembered Gate'.

<sup>17</sup> Christopher Small, *Musicking: The Meanings of Performing and Listening* (Middletown CN: Wesleyan University Press, 1998), 2.

<sup>18</sup> John Blacking, *How Musical Is Man?* (Seattle and London: University of Washington Press, 1973/2000), 32.

<sup>19</sup> Herbert Spencer, 'The Origin and Function of Music' (1857), in Herbert Spencer, *Literary Style and Music* (New York: Philosophical Library, 1951), 60-1.

<sup>20</sup> Spencer, 'The Origin and Function of Music', 73-4.

<sup>21</sup> George Shoobridge Carr, *Social Evolution and the Evolution of Socialism: A Critical Essay* (London: W. Stewart & Co., 1895), 37.

<sup>22</sup> John Fiske, *Outlines of Cosmic Philosophy, Based on the Doctrine of Evolution, with Criticism on the Positive Philosophy*, 2 vols. (London: Macmillan & Co., 1874), vol. 2, 201.

<sup>23</sup> Thomas Dixon, *The Invention of Altruism: Making Moral Meanings in Victorian Britain* (Oxford: Oxford University Press, 2008), 196-7.

<sup>24</sup> Herbert Spencer, *The Principles of Psychology*, 2<sup>nd</sup> edn., 2 vols. (New York: D. Appleton & Co., 1870/1873), vol. 2, 612.

<sup>25</sup> See Kate Distin, *The Selfish Meme: A Critical Reassessment* (Cambridge: Cambridge University Press, 2005).

<sup>26</sup> See Bennett Zon, 'Spencer, Sympathy and the Oxford School of Music Criticism', in *British Musical Criticism 1850-1950*, eds. Jeremy Dibble and Julian Horton (Woodbridge: Boydell and Brewer, 2018).

<sup>27</sup> Herbert Spencer, 'Religion: A Retrospect and Prospect', *Nineteenth Century* 15 (Jan. 1884), 12.

<sup>28</sup> Herbert Spencer (*First Principles*), cited in F. Howard Collins, *An Epitome of the Synthetic Philosophy* (London and Edinburgh: Williams and Norgate, 1894), 63.

<sup>29</sup> The Rev. George T. Ladd, *Lectures on the Unknown God of Herbert Spencer. And the Promise and Potency of Prof. Tyndall* (Milwaukee NJ: I. L. Hauser, 1900), 24.

<sup>30</sup> Herbert Spencer, *First Principles*, 6<sup>th</sup> edn. (London: Williams and Norgate, 1862/1908), 94; 106.

<sup>31</sup> Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, 2 vols. (London: John Murray, 1871), vol. 2, 336.

<sup>32</sup> Roger Scruton, 'Programme Music', *Oxford Music Online*, accessed 25/11/16.

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- <sup>33</sup> Eduard Hanslick and Gustav Cohen (trans.), *The Beautiful in Music: A Contribution to the Revision of Musical Aesthetics* (London: Novello and Co, Ltd., and New York: H. W. Gray Co., 1891), 45.
- <sup>34</sup> See for example Paul Barnes, 'Franz Liszt and the Sacramental Bridge: Music as Theology of Presence', <http://www.paulbarnes.net/pdfs/lisztsacramentalbridge.pdf>; and Paul Merrick, *Revolution and Religion in the Music of Liszt* (Cambridge: Cambridge University Press, 1987).
- <sup>35</sup> Franz Liszt, Berlioz und seine 'Harold-Symphonie' (1855), cited in Mark Evan Bonds, *Absolute Music: The History of An Idea* (New York: Oxford University Press, 2014), 211.
- <sup>36</sup> William Spottiswoode, 'Letter, Addressed by William Spottiswoode, Esq., M.A., F.R.S., to Some Leading Members of the Musical and Scientific World, Originated this Association (8 April 1874)', *Proceedings of the Musical Association* 1 (1874–75), iii.
- <sup>37</sup> Willard McCarty, 'Humanities Computing as Interdiscipline'.
- <sup>38</sup> S. W. Littlejohn, 'An Overview of Contributions to Human Communication Theory from other Disciplines', 246.
- <sup>39</sup> McCarty, 'Looking Through an Unknown, Remembered Gate'.
- <sup>40</sup> See Ruth Barton, 'An Influential Set of Chaps': The X-Club and Royal Society Politics 1864–85', *The British Journal for the History of Science* 23/1 (March 1990), 53–81.
- <sup>41</sup> Jacobs, *In Defense of Disciplines*, 28.
- <sup>42</sup> Rosemary Golding, *Music and Academia in Victorian Britain* (Farnham: Ashgate, 2013), 4. See also Jamie Kassler, 'The Royal Institution Music Lectures, 1800–1831': A Preliminary Study', *Royal Musical Association Research Chronicle Volume* 29 (1983–5), 61.
- <sup>43</sup> Peter Maurice, *What Shall We Do With Music? A Letter to the Rt. H The Earl Derby: Chancellor of the University of Oxford* (London: G. H. Davison, 1856), 12–13.
- <sup>44</sup> Maurice, *What Shall We Do With Music?*, 9.
- <sup>45</sup> Maurice, *What Shall We Do With Music?*, 16; 11.
- <sup>46</sup> Maurice, *What Shall We Do With Music?*, 14.
- <sup>47</sup> Bernard Lightman, *Victorian Popularizers of Science: Designing Nature for New Audiences* (Chicago and London: University of Chicago Press, 2007), 2–3.
- <sup>48</sup> See Bernard Lightman and Bennett Zon, *Evolution and Victorian Culture* (Cambridge: Cambridge University Press, 2014).
- <sup>49</sup> Lightman, *Victorian Popularizers of Science*, 125–6.
- <sup>50</sup> Annie Carrie, *The Wonders of Common Things*, n.d., cited in Lightman, *Victorian Popularizers of Science*, 125.
- <sup>51</sup> William Wallace, *The Threshold of Music: An Inquiry Into the Development of the Musical Sense* (London: Macmillan and Co., Ltd, 1908), 2; 1.
- <sup>52</sup> Pater, 'The School of Giorgione', 86.
- <sup>53</sup> Mark Evan Bonds, *Absolute Music: The History of an Idea* (Oxford: Oxford University Press, 2014), 273. See for example Patricia Herzog, 'The Condition to Which All Art Aspires: Reflections on Pater on Music', *British Journal of Aesthetics* 36/2 (April 1996), 125.
- <sup>54</sup> Pater, 'School of Giorgione', 88.
- <sup>55</sup> Lydia Goehr, 'How to Do More with Words: Two Views of (Musical) Ekphrasis', *British Journal of Aesthetics* 50/ 4 (Oct. 2010), 389.
- <sup>56</sup> Pater, 'School of Giorgione', 71.
- <sup>57</sup> Goehr, 'How to Do More with Words', 14.
- <sup>58</sup> Goehr, 'How to Do More with Words', 14.
- <sup>59</sup> Spencer, 'The Origin and Function of Music', 59.
- <sup>60</sup> Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, 2 vols (London: John Murray, 1871), vol. 2, 336.

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- <sup>61</sup> Richard M. Doyle, *Darwin's Pharmacy: Sex, Plants, and the Evolution of the Noösphere* (Seattle WA: University of Washington Press, 2011), 141.
- <sup>62</sup> Bennett Zon, *Evolution and Victorian Musical Culture* (Cambridge: Cambridge University Press, 2017).
- <sup>63</sup> Charles Louis Hett, *A Dictionary of Bird Notes, To Which is Appended a Glossary of Popular Local and Old-Fashioned Synonyms of British Birds* (Brigg: Jackson's, Market Place, 1898), 17.
- <sup>64</sup> Henry Keatley Moore, *The Child's Pianoforte Book: Being a First Year's Course at the Pianoforte* (London: W. Swan Sonnenschein & Co., 1880?), 77.
- <sup>65</sup> Friedrich Froebel, *Froebel's Chief Writings on Education Rendered into English*, trans. S. S. F. Fletcher and J. Welton (London, Edward Arnold, 1912), 153, 176.
- <sup>66</sup> John Curwen, *Independent Magazine* (1842), 23, cited in Bernarr Rainbow, *The Land Without Music: Musical Education in England 1800–1860 and Its Continental Antecedents* (London: Novello and Co., Ltd, 1967), 148.
- <sup>67</sup> W. J. T. Mitchell, *Picture Theory: Essays on Verbal and Visual Representation* (Chicago and London: University of Chicago Press, 1994), 5.
- <sup>68</sup> Pater, 'School of Giorgione', 85–86.
- <sup>69</sup> Spencer, 'Origin and Function of Music', 52, 59, 68, 74.
- <sup>70</sup> McCarty, 'Looking Through an Unknown, Remembered Gate'.
- <sup>71</sup> C. Hubert H. Parry, *Style in Musical Art* (London: Macmillan and Co., Ltd., 1911), 84.
- <sup>72</sup> Jeremy Dibble, *C. Hubert H. Parry: His Life and Music* (Oxford: Clarendon Press, 1992), 168.
- <sup>73</sup> See for example, Jon Michael Spencer, *Theological Music: Introduction to Theomusicology* (Westport CN: Greenwood Press, 1991); Don Saliers, *Music and Theology* (Nashville TS: Abingdon Press, 2007); or Maeve Louise Heaney VDMF, *Music as Theology: What Music Has to Say about the Word* (Eugene OR: Pickwick Publications, 2012).
- <sup>74</sup> Joseph Harper, 'Towards an Understanding of Tractarian Hymnody: A Critical Appraisal of the Interaction between Theology, Poetry and Music in Anglican Hymnody between 1840 and 1900' (PhD diss., Durham University, 2010), 13.
- <sup>75</sup> John Harrington Edwards, *God and Music* (New York: The Baker & Taylor Co., 1903), 99.
- <sup>76</sup> Joseph Goddard, *The Rise of Music: Being a Careful Enquiry into the Development of the Art from its Primitive Puttings Forth in Egypt and Assyria to its Triumphant Consummation in Modern Effect* (London: William Reeves, 1908), xv.
- <sup>77</sup> See for example Solie, Ruth, 'Melody and the Historiography of Music', *Journal of the History of Ideas* 43/2 (April–June 1982), 297–308.
- <sup>78</sup> Helen Small, *The Value of the Humanities* (Oxford: Oxford University Press, 2013), 23.
- <sup>79</sup> David Deutsch, *British Literature and Classical Music: Cultural Contexts 1870-1945* (London: Bloomsbury, 2015), 19.
- <sup>80</sup> Sheila Jasanoff, 'A Field of its Own: The Emergence of Science and Technology Studies', in *Oxford Handbook of Interdisciplinarity*, eds. Frodeman, Klein, and Mitcham, 192-3.